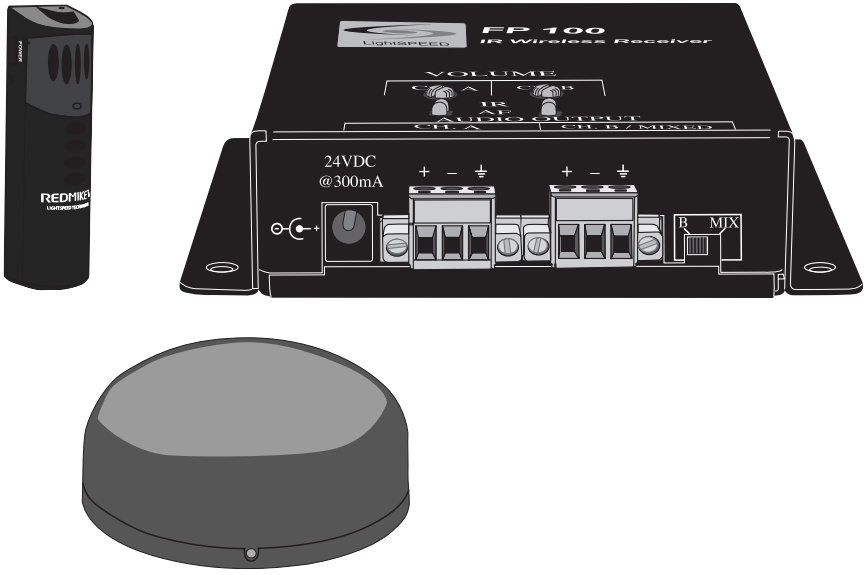
FP 100

Infrared Wireless Microphone System



User Manual

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IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use the apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding- type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/ accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lighting storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. When the mains plug or appliance coupler used as the disconnect device, it shall remain readily operable.
16. Please keep the unit in a good ventilation environment.
17. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
18. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

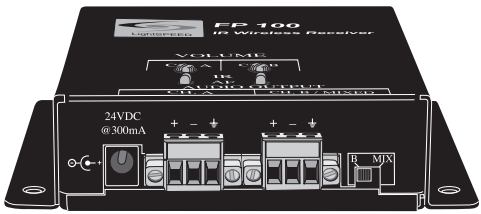
SECTION 1:

OVERVIEW

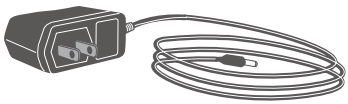
SYSTEM COMPONENTS AND UNPACKING

The standard configuration of the FP 100 will contain:

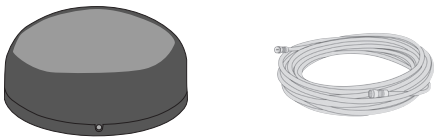
FP100 Infrared Wireless Microphone System



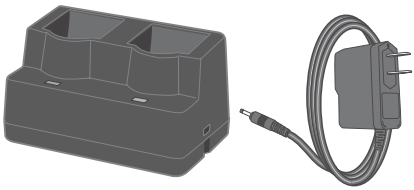
Amplifier Power Supply



Infrared Sensor and Cable



Cradle Charger and Power Supply



REDMIKE™ VC Volume Control Microphone

Audio Patch Cable

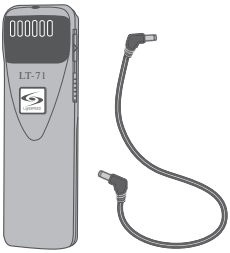
OPTIONAL COMPONENTS

Optional equipment which may be part of your FP100 system:

REDMIKE® VC Classroom Microphone

REDMIKE Share Handheld Mic & Charger Cable

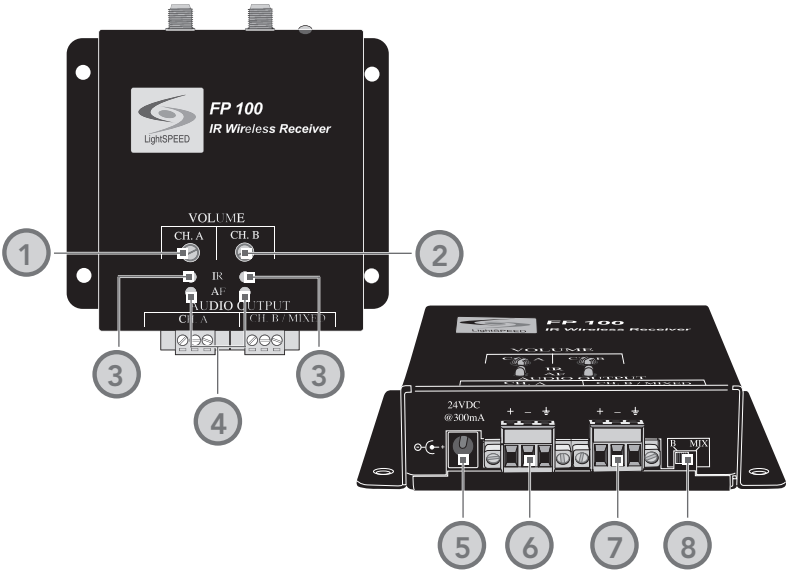
LT71 LightMic and Charger Cable



Standard Components	
FP100	Compact Infrared Microphone Receiver
24V-250	24V/250A power supply for FP 100
SR70F	Infrared sensor with mounting bracket
PC50F	50' plenum-rated sensor cable
RMV	REDMIKE VC volume control microphone with battery
NH2A27	AA NiMH rechargeable sensing battery for REDMIKE
RMLC3	REDMIKE lavaliere cord
RMCC	REDMIKE cradle charger
5V-1.0	5V/1.0A power supply for cradle charger

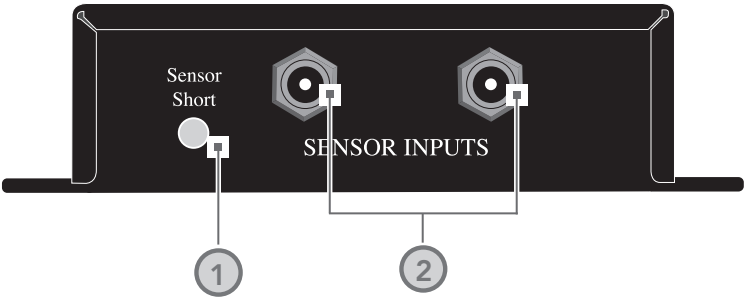
Optional Components	
RMT	REDMIKE classroom microphone with lavaliere cord and rechargeable sensing battery.
RMS	REDMIKE Share handheld microphone with battery pack
LT71	LightMic microphone with batteries
NH2APK	NiMH rechargeable battery pack for REDMIKE Share
NH1	AA NiMH rechargeable battery for LT71 (2 per microphone)

FRONT AND TOP PANEL CONTROLS



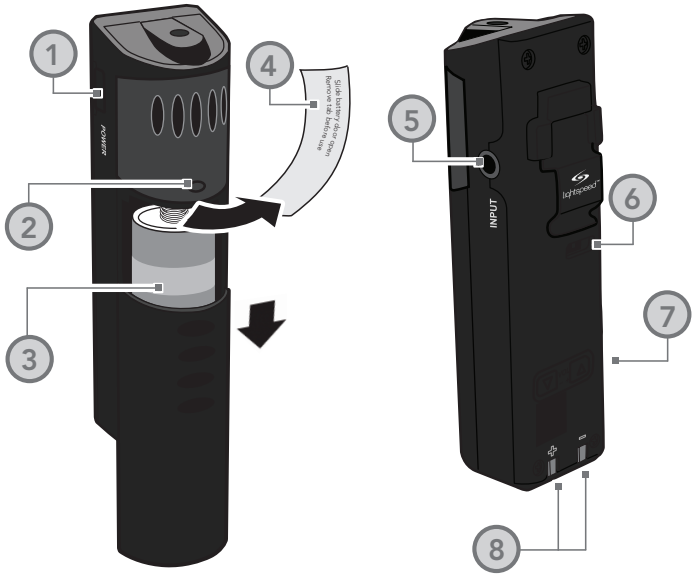
1. **CH. A VOLUME:** sets the nominal volume level of the teacher microphone (transmitter switched to CH A). Rotating the adjustment knob clockwise increases the output level.
2. **CH. B VOLUME:** sets the nominal volume level of the optional second microphone (transmitter switched to CH B). Rotating the adjustment knob clockwise increases the output level.
3. **IR INDICATORS (IR):** These lights will glow red when the corresponding transmitter is turned on and being received. This light confirms the FP 100 is receiving a steady infrared signal.
4. **AF INDICATORS (IR):** These lights flash green when audio (voice) from the microphone is detected.
5. **DC POWER INPUT:** Plug the 24V power supply into this jack.
6. **CH. A AUDIO OUTPUT:** This balanced audio output can be connected to the mic or line input on a mixer/amplifier to amplify the audio signal from the CH. A transmitter.
7. **CH. B / MIXED AUDIO OUTPUT:** This balanced audio output sends the audio from the microphone set to CH. B. Both CH. A and CH. B transmitters (depending on the position of the B/MIX switch) are ouput to a mic or line input on a mixer/amplifier.
8. **B/MIX SWITCH:** This switch determines the audio source that is output through the CH.B/MIXED Audio Output jack. When the switch is set to 'MIX' (default), both the CH. A and CH. B signal are output through this jack.

REAR PANEL CONTROLS



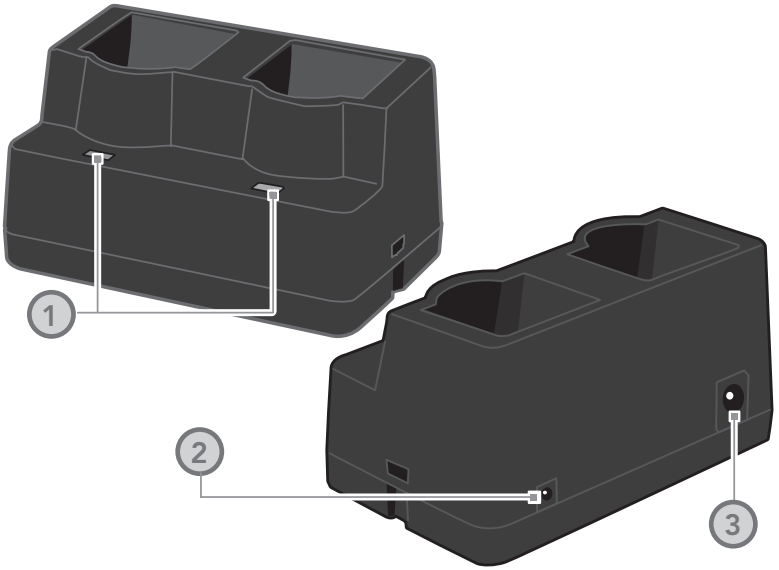
1. **SENSOR SHORT:** This LED glows when there is a short in one of the sensor cables.
2. **SENSOR INPUT:** The IR sensor cable connects to the sensor input jacks. Connect additional sensors to the FP100 to cover large or odd-shaped rooms.

REDMIKE VC (Volume Control) Controls and Connections



1. **POWER /MUTE BUTTON**
2. **POWER/LOW BATTERY INDICATOR:** A BLUE light indicates the REDMIKE VC is on and fully charged. A RED light indicates a charge is needed.
3. **BATTERY COMPARTMENT:** To open, slide the door downward. The battery should only be replaced by a Lightspeed AA rechargeable sensing battery (part # BA-NH2A27).
4. **YELLOW PROTECTIVE TAB:** Slide the battery compartment door and remove this disposable protective tab before use.
5. **AUDIO/MICROPHONE INPUT:** Use this input to plug in a laptop, MP3 player or other audio source to wirelessly transmit audio to be played through the system. Alternatively, an external microphone can be connected.
6. **CHANNEL SELECT SWITCH (CH A/B):** Use this to choose Channel A or B. If you are using a single microphone, we recommend using Channel A.
7. **VOLUME CONTROLS (UP - DOWN)**
8. **CHARGER CONTACTS (+ -):** These contacts interface with the charging tabs when the REDMIKE VC is placed in the BC-RMCC cradle charger.

CRADLE CHARGER CONTROLS AND CONNECTIONS



1. **CHARGE INDICATORS:** The light glows red while the REDMIKE is charging. When fully charged, the light will glow green. A blinking red light indicates that no battery is sensed, (REDMIKE Yellow Protective Tab may not have been completely removed—see page 5, item 4.) A blinking green LED means a non- Lightspeed battery has been installed (possibly an alkaline battery).
2. **DC POWER PORT:** Connect the 5V/1.0A DC power cord here.
3. **OPTIONAL CHARGING PORT:** Plug the charging cord for the optional LT71 or the REDMIKE Share microphones here.

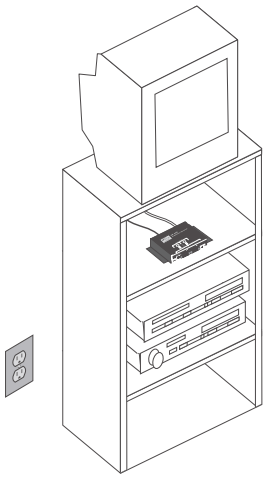
SECTION 2:

SET-UP & USE

1. LOCATION OF THE AMPLIFIER

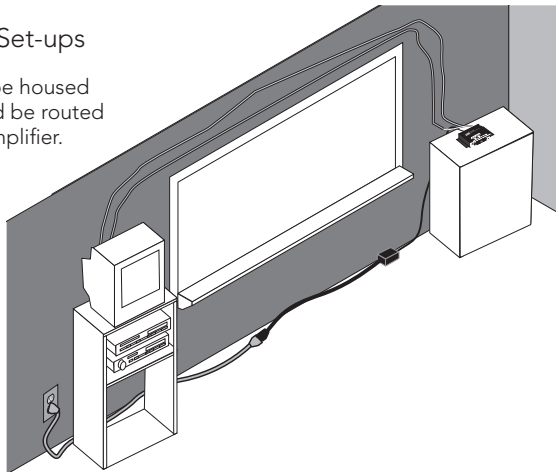
Before running wires to the FP100 or plugging in, find a suitable, stable location for the amplifier. Ideally, the teacher should have ready access and an electrical outlet should be within six feet. The best possible location for the FP100 is in a media cabinet with any existing audio/video equipment.

Media Cabinet Set-up



Avoid Separated Set-ups

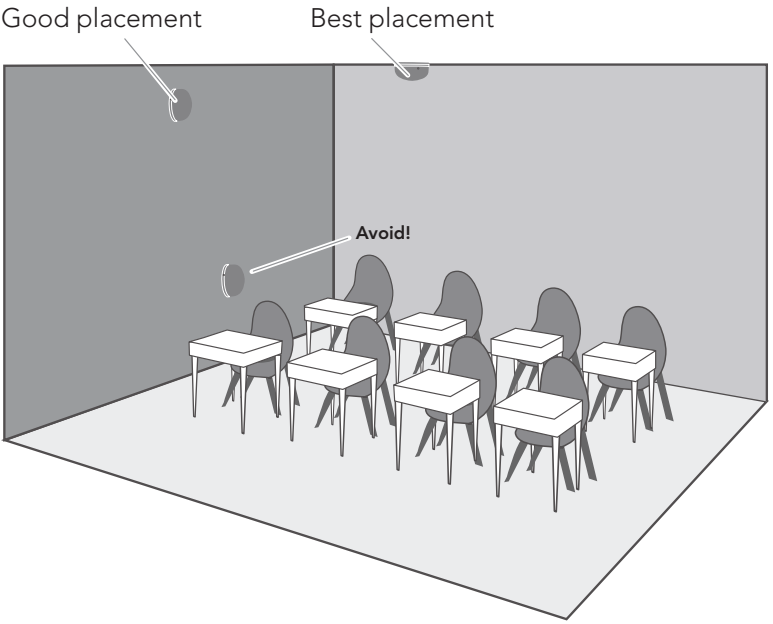
Components should be housed together. Wires should be routed back directly to the amplifier.



2. IR SENSOR INSTALLATION

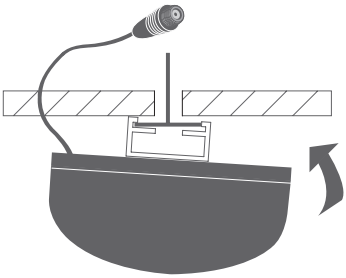
Sensor location is very important for optimum performance of the FP100 Classroom Audio System.

- **BEST:** On the ceiling at or near the middle of the classroom.
- **GOOD:** High and centered on the long wall.
- **AVOID:** Locations in corners, on walls at heights lower than 7 feet, or in places where the line of sight is or could be obstructed.



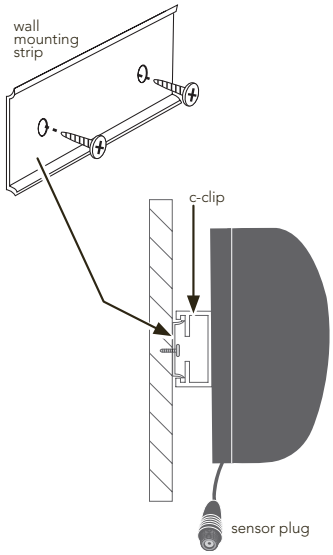
2. IR SENSOR INSTALLATION CONT'D

Suspended Ceiling Mount



1. **Lift** the ceiling tile nearest the grid rail in your desired sensor location. Guide one side of the C-clip over one edge of the grid rail. Providing firm support to the back of the grid rail with one hand (to prevent bending), firmly and carefully snap the second side of the C-clip over the edge of the rail.
2. **Uncoil** sensor wire. Connect one end of the sensor cable to the plug on the sensor. Secure wire overhead and route it back to the system.
3. **Connect** the other end of the sensor cable into one of the sensor inputs on the back of the system.

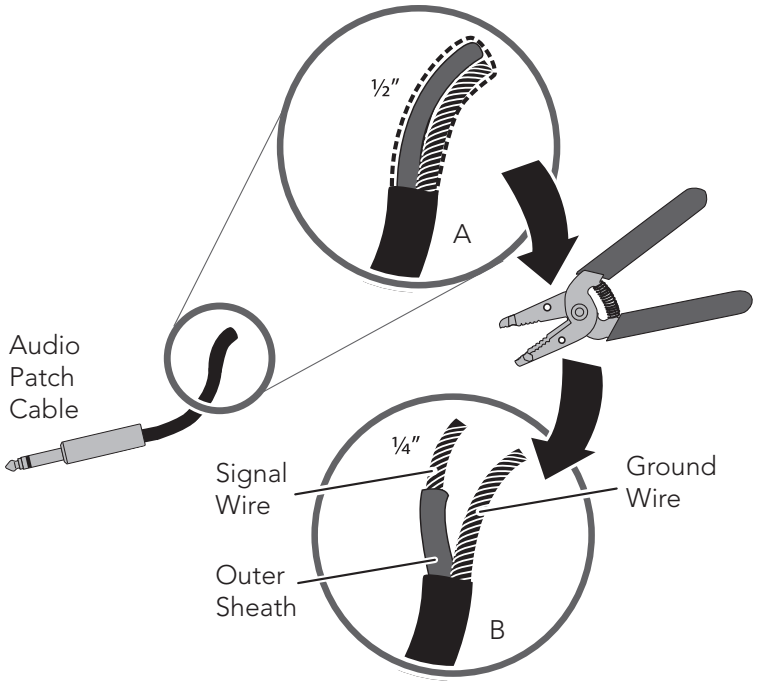
Wall/Solid Ceiling Mount



1. **Screw** the plastic mounting strip to a place high on the wall or in the middle of the solid ceiling. Mount the strip horizontally as shown above.
2. **Firmly** snap the C-clip on the back of the IR sensor onto the plastic mounting strip with the sensor plug hanging down (if a wall mount) or toward the receiver location (if ceiling mount).
3. **Uncoil** the sensor wire. Screw one end of the sensor cable to the plug on the sensor. Route the wire back to the system, securing it along the way.
4. **Connect** the other end of the sensor cable to one of the sensor inputs on the back of the system.

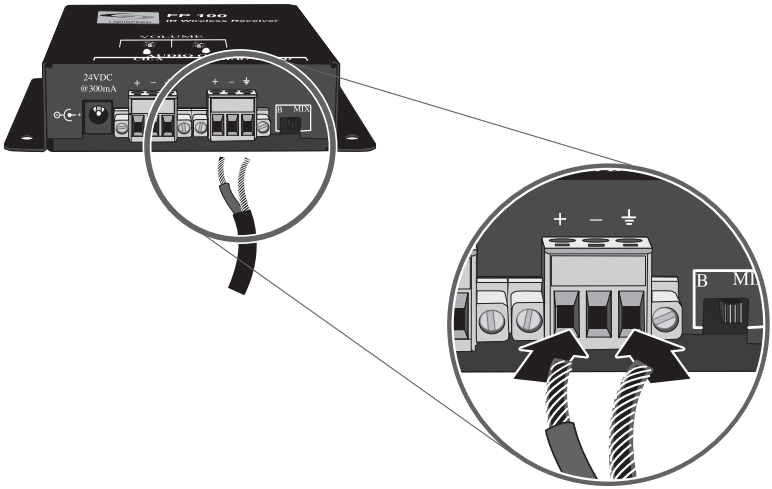
3A. CONNECTING TO THE AMPLIFIER

1. Locate the audio patch cable
2. Strip the cable's rubber insulation ½" (see A in illustration) and then strip the outer sheath of the signal wire leaving ¼" exposed (see B in illustration).

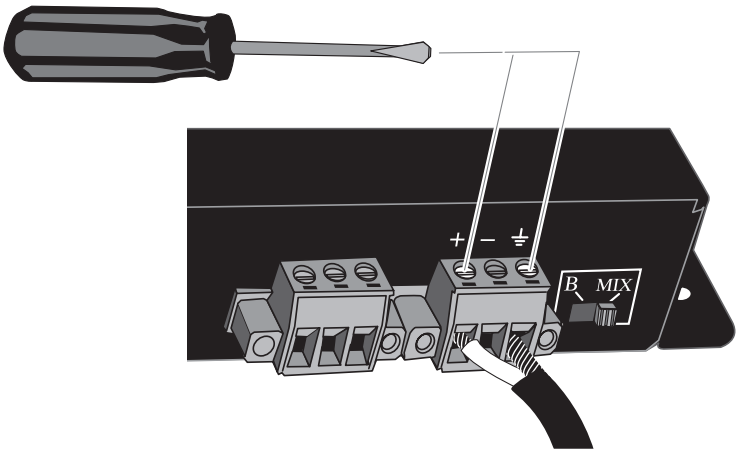


3A. CONNECTING TO THE AMPLIFIER CONT'D

3. Insert the stripped wires into the marked openings, left and right, in the Euro-block.

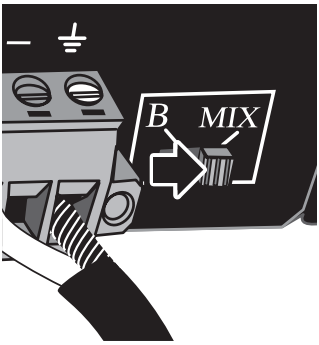


4. Secure the inserted wires by tightening the retaining screws.

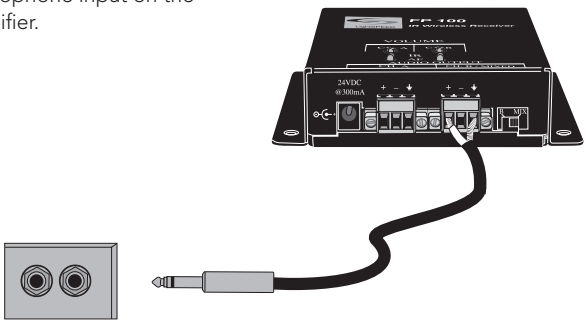


3A. CONNECTING TO THE AMPLIFIER CONT'D

5. Ensure the B/MIX switch is pushed to the right to select the MIXED output.



6. Connect the ¼˝ connector into the audio or microphone input on the existing amplifier.



3B. INDIVIDUAL CHANNEL CONNECTION

(ALTERNATE CONNECTION METHOD)

This method allows for individual control of each microphone channel from the amplifier being used.

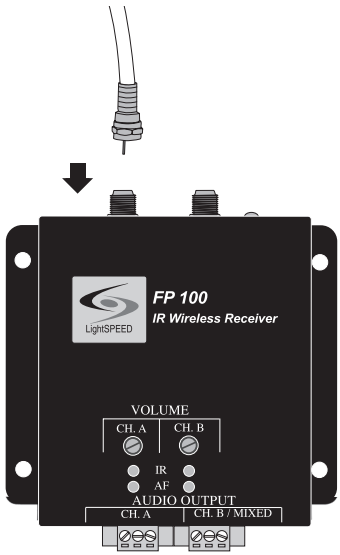
a. Obtain a second balanced audio cable.

b. Strip the wire to reveal the positive, negative, and grounded conductors.

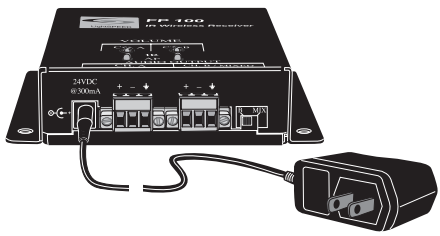
c. Fasten the wire to the available CH A euro-block connector using a small screw driver (observe the proper polarity).

3C. FINALIZING CONNECTIONS

1. Ensure all top panel volume controls are turned fully counterclockwise.
2. Ensure audio output connection(s) are securely connected into the FP 100 and the mixer/amplifier. Make sure the CH.B/MIX switch is in the appropriate setting based on your output method (see pg. 14 for more info).
3. Ensure sensor cable is attached securely.



4. Ensure DC barrel end of the power supply is connected to the DC input on the FP100.
5. Ensure AC adaptor end of the power supply is connected to a standard 110 VAC electrical wall outlet.



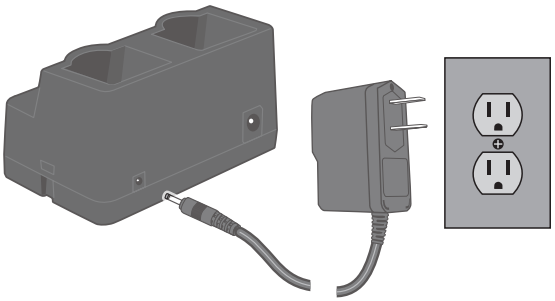
4. CHARGING THE REDMIKE VC

Before use, the REDMIKE VC should be charged. It will take 8-9 hours for the REDMIKE VC to obtain a full charge. A fully charged REDMIKE VC will last for over 7 hours of use. If microphones are used daily, they should be kept in the cradle – microphones can be left in a charging cradle constantly for up to 2 weeks without causing degradation to battery life.

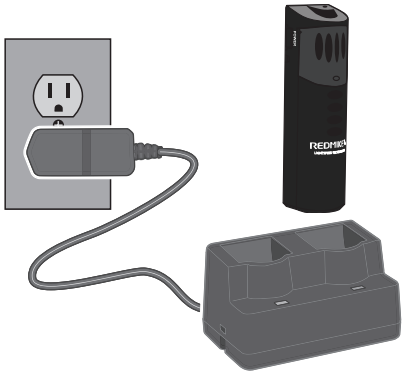
A red light on the charging cradle indicates the REDMIKE VC is charging. A green light indicates that charging is complete and a full charge has been reached. A blinking light indicates a charging or sensing error. See Troublshooting section for more information.

REDMIKE VC incorporates alkaline protection into the microphone design. Always use a Lightspeed rechargeable sensing battery. Replacement AA NiMH batteries may only be purchased through Lightspeed Technologies (part # NH2A27). Do not attempt to charge alkaline batteries. They can overheat and expand creating a significant hazard and damaging the microphone (this is not covered by warranty).

1. Plug power cord into the cradle charger and then plug the AC end into an electrical outlet.



2. Place the REDMIKE VC into the cradle. The LED on the cradle will glow red indicating charging has started. When the REDMIKE VC is fully charged the LED on the cradle charger will change to green.



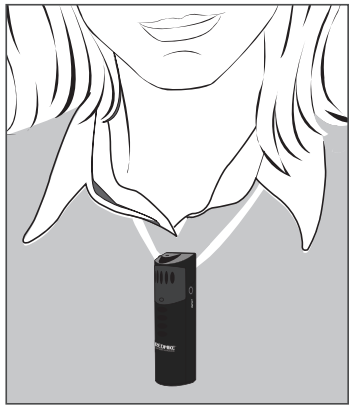
5. OPERATING THE REDMIKE VC

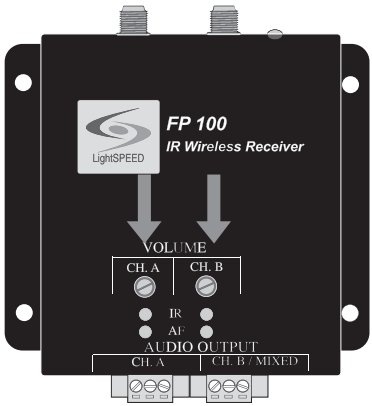
Once the REDMIKE VC is charged, follow these steps to set it up for use.

1. Turn the FP100 power on. The blue LED will glow.
2. Turn on the REDMIKE VC. The red IR LED on the FP 100 will light to indicate a signal is being received.
3. Slip the REDMIKE VC with lanyard around the neck and position the top of the microphone just below the collarbone. NOTE: Positioning of the REDMIKE VC is critical for proper volume adjustment.
4. While speaking in a normal voice, increase the A VOLUME level until your own voice is barely audible.

   REMEMBER: this equipment is designed to supplement and distribute the teacher's voice so he or she is able to speak at a normal, conversational tone. Having the volume set too high will result in feedback and listener fatigue.

   Note: The REDMIKE VC has 9 volume levels. 4 up, 4 down and a middle position. Be sure to start in the middle position.
5. If a second REDMIKE VC was purchased, repeat steps 2-4. NOTE: Each REDMIKE VC has its Channel pre-set to either A or B. No further adjustment is necessary.
6. Once the normal level is set on the FP100, the user can now use the REDMIKE VC volume controls to adjust the microphone volume up or down during normal classroom operation.





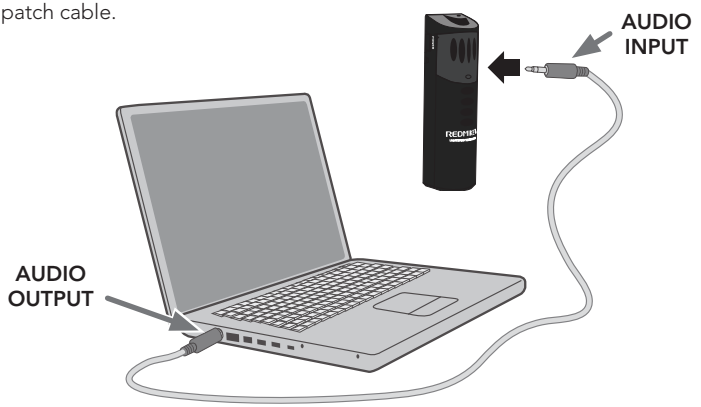
USING THE REDMIKE VC TO AMPLIFY EXTERNAL AUDIO EQUIPMENT

The REDMIKE VC includes a 3.5mm audio input jack to connect to an audio source like a laptop or MP3 player. The REDMIKE VC will transmit the audio signal to be played through the system.

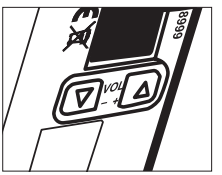
If your system includes two REDMIKE VCs, use the student microphone (already set to Channel B). NOTE: This feature works on both channels but we recommend using Channel B so the teacher's volume on the CH A does not have to be adjusted.

The optional LT71 can also amplify external audio. Simply plug the 3.5mm patch cable from the audio source into the input labeled "AUX IN" and adjust the volume of the source to the desired sound level.

1. Plug your external audio equipment (for example, laptop), into the input on the REDMIKE VC labeled "INPUT" using a 3.5mm patch cable.



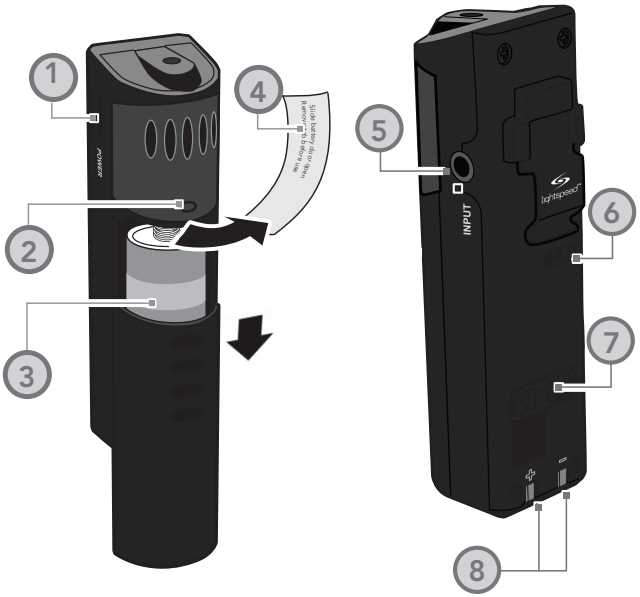
2. Adjust the volume of the selected mic channel to achieve desired loudness.



SECTION 3:

OPTIONAL ACCESSORIES

REDMIKE CONTROLS AND CONNECTIONS



1. **POWER BUTTON:** Press this button to turn the REDMIKE on, press again to turn it off (mute).
2. **POWER/LOW BATTERY INDICATOR:** A blue light indicates the REDMIKE is on and fully charged. A red light indicates a charge is needed.
3. **BATTERY COMPARTMENT:** To access the battery compartment, slide the door downward. The battery should only be replaced by a Lightspeed AA rechargeable sensing battery (part # NH2A27).
4. **YELLOW PROTECTIVE TAB:** Slide the battery compartment door open to remove this disposable protective tab before use. NOTE: do not attempt to remove the tab without first opening the compartment door, as it may tear, leaving fragments.
5. **AUDIO/MICROPHONE INPUT:** Use this input to plug in a laptop, MP3 player or other audio source to wirelessly transmit audio to be played through the system. Alternatively, an external microphone can be connected.
6. **CHANNEL SELECT SWITCH (CH A/B):** This switch allows for selection between Channel A or B. If you are using a single microphone, we recommend using Channel A.
7. **VOLUME CONTROLS (UP - DOWN)**
8. **CHARGER CONTACTS (+ -):** These contacts interface with the charging tabs when the REDMIKE VC is placed in the RMCC cradle charger.

REDMIKE : Charging

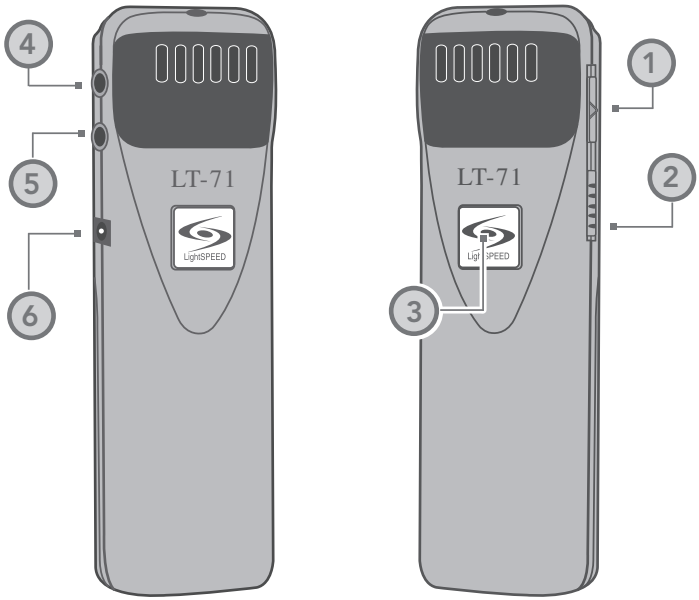
Before use, the REDMIKE should be charged. See page 18 and follow the same instructions for the REDMIKE VC.

REDMIKE: Initial Set-up

See page 19 and follow steps 1-5 to setup the REDMIKE.

Note: The REDMIKE does not have volume control on the microphone like the REDMIKE VC. All Volume adjustments must be made at the FP100 or the amplifier.

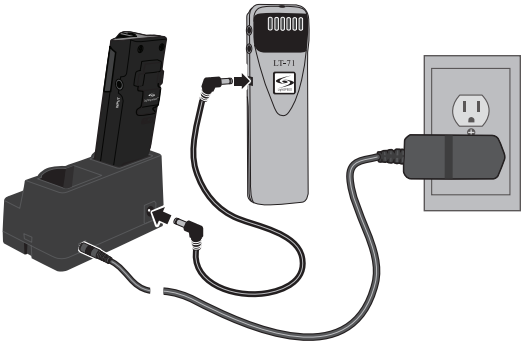
OPTIONAL LT71: Controls and Connections



1. **ON/OFF/MUTE Switch**
2. **CHANNEL SELECT SWITCH (CH A/B):** Use this to choose Channel A or B. If you are using a single microphone, we recommend using Channel A.
3. **POWER/CHARGE INDICATOR:** A blue light indicates the REDMIKE VC is on and fully charged. A red light indicates a charge is needed.
4. **EXTERNAL MICROPHONE INPUT (MIC):** Use the 3.5mm MIC jack for the optional T250 headset microphone (part# TK250M).
5. **AUXILIARY (AUX):** Plug a laptop, MP3 player or other audio source into this jack to wirelessly transmit the audio signal to be played through the system.
6. **CHARGER INPUT (CHARGER):** Plug the charging cable from the charger into this jack for daily charging. The LED on the front will glow red to indicate charging.

LT71: Charging

1. Ensure that the LT71 is turned off.
2. Make sure the cradle charger is plugged into a wall outlet. Connect one end of the charging cable into the jack labeled CHARGER on the side of the LT71 and plug the other end into the charging jack on the rear of the REDMIKE cradle charger. The LT71's rechargeable batteries are factory installed. The LED on the front of the LT71 will glow red when charging.
3. Leave the LT71 plugged in overnight (8–10 hrs.) to obtain a full charge.

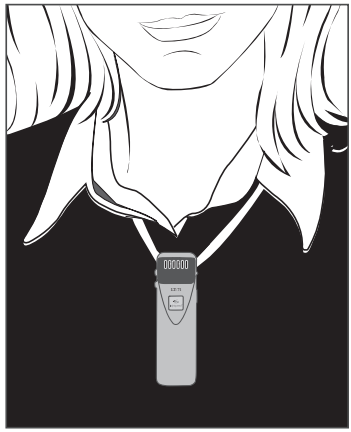


LT71: Initial Set-up

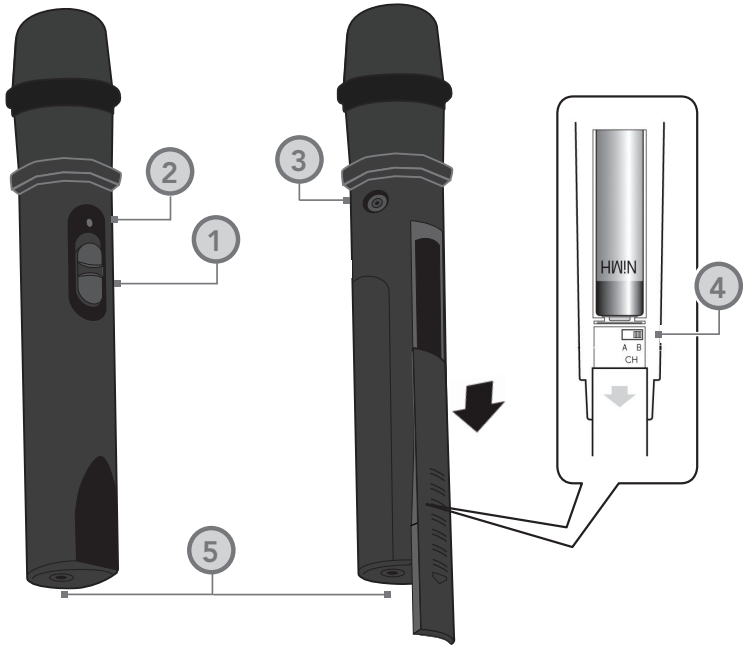
Once the LT71 is charged, follow these steps to set it up for use.

1. Turn the FP100 power switch to the ON position. The red LED on the switch will glow.
2. Turn on the LT71 and set the operating channel to “B”.
3. Slip the LT71 with lanyard around the neck ad position the top of the microphone just below the collarbone. NOTE: Positioning of the LT71 is critical for proper volume djustment.
4. While speaking in a normal voice slowly increase the volume for Channel B on the FP100 until your voice is barely audible.

   REMEMBER: This equipment supplements the user’s voice so they are able to speak in a conversational tone. Having the volume set too high will result in feedback and listener fatigue.



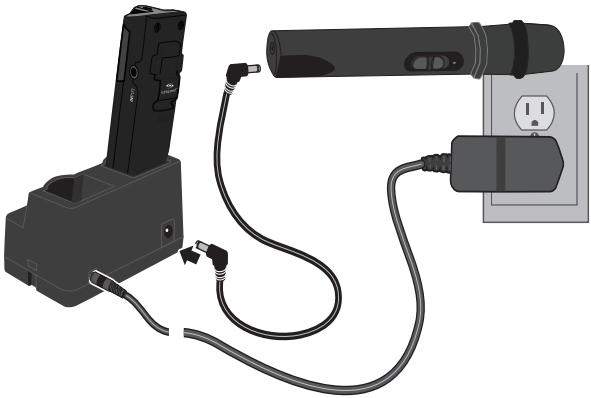
REDMIKE Share: Controls and Connections



1. **POWER SWITCH**
2. **POWER/CHARGE INDICATOR:** this light glows blue when turned on and turns off to indicate low battery level. When charging, the light glows red.
3. **AUDIO INPUT:** plug a laptop, MP3 player or other audio device into this jack to wirelessly transmit the audio signal to be played through the system.
4. **CHANNEL SELECT SWITCH (CH A/B):** Located in the battery compartment, this switch is set to Channel B at the factory.
5. **CHARGER INPUT:** Plug the charging cable from the REDMIKE cradle charger or into this jack.

REDMIKE Share: Charging

1. Ensure that the REDMIKE Share is turned off.
2. Make sure the cradle charger is plugged into a wall outlet. Connect one end of the charging cable into the jack labeled CHARGER on the side of the REDMIKE Share and plug the other end into the charging jack on the rear of the cradle charger. The REDMIKE Share's rechargeable batteries are factory installed. The LED on the front of the Handheld Mic will glow green when charging.
3. Leave the REDMIKE Share plugged in overnight (8–10 hrs.) to obtain a full charge. A blinking red LED indicates charging is complete.



REDMIKE Share: Initial Set-up

1. Ensure the FP 100 is ON. The red LED on the power switch will glow.
2. Turn on the REDMIKE Share by sliding the switch to the top position.
3. Grip the barrel in the center section. **Avoid covering the infrared emitters circling the base. This could interrupt signal transmission.**
4. While speaking in a normal voice, increase the B VOLUME level until your voice is barely audible.

   REMEMBER: This equipment is designed to supplement and distribute the user's voice so they are able to speak in a conversational tone. Having the volume set too high will result in feedback and listener fatigue.

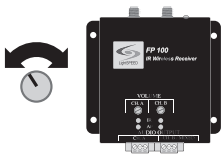
INITIAL SET-UP:
OPTIONAL IR MEDIA CONNECTOR

1. The iR Media Connector uses the same channel (channel B) as the optional second microphone (REDMIKE, LT71, or RMS). As a result, they cannot be used simultaneously. If you have a second microphone, turn it off before transmitting audio from the iRMC.
2. The iR Media Connector volume is preset for most standard audio signals. If you need to turn the volume up or down, follow this procedure:
3. Adjust the volume at the computer, television, or other audio source if possible.

4. If the audio source does not have a volume control (such as many DVD players) adjust the volume at the iRMC.

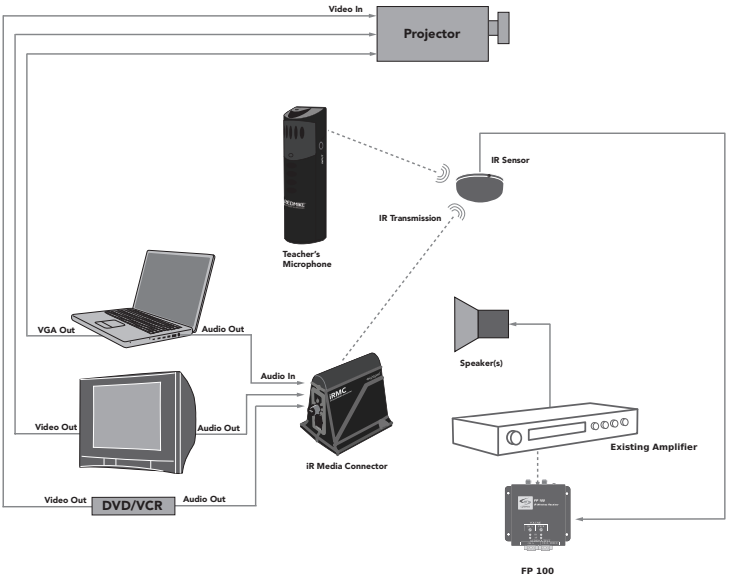
5. If the first two options do not give optimum volume level, the last place to adjust the volume is the CH. B Volume on the FP 100.

   NOTE: If you adjust the CH B volume on the classroom audio system, you will also be changing the volume for your second microphone. Return the CH B volume knob to the original position before turning the second microphone back on.



OPTIONAL IR MEDIA CONNECTOR AUDIO INTEGRATION

The iRMC is designed to integrate with the FP100 and multiple audio sources, allowing other instructional technologies to be clearly heard throughout the classroom.



OTHER OPTIONAL ACCESSORIES

IRMC	iR Media Connector with cables and power supply
TK250M	Noise-canceling headset microphone
TCC7	Charging cable for REDMIKE Share and LT71
RCA6	6' dual RCA audio cable
MSC3535	3.5mm to 3.5mm stereo audio cable

SECTION 4:

TROUBLESHOOTING

COMMON PROBLEMS AND SOLUTIONS

Note: Most problems are directly related to low battery power. Please run through the "Battery Check" items first. For remaining troubleshooting, use known good, fully-charged batteries.

ALL PROBLEMS: Most Problems are related to low battery power.

SOLUTION: Battery Check

- Confirm batteries are charged each night.
- Confirm proper batteries are used. The REDMIKE requires the Lightspeed NH2A27 rechargeable sensing battery for proper charging. The REDMIKE Share uses the NH2APK rechargeable battery pack. The LT71 requires two NH1 AA rechargeable batteries.
- Make sure the microphones are turned off while charging so a full charge is attained. Full charge will last eight hours.
- Inspect the battery contacts. Clean and adjust if necessary.

PROBLEM: Hearing Static

SOLUTION: Follow these steps to eliminate static.

- Ensure sensor is in optimum location (refer to sensor placement in manual). A single sensor will cover a 1600 sq. ft. enclosed classroom.
- Ensure that no other REDMIKE VC/ REDMIKE/LT71/REDMIKE Share is operating on the same channel.
- If the optional iR media connection is in use, set the microphone to Channel A.

PROBLEM: Low Volume or Feedback

SOLUTION: Follow these steps to eliminate low volume or feedback.

- Ensure microphone is positioned appropriately, just below the collar bone.
- Check volume level on the amplifier. If the volume is too high, feedback will occur. Adjust accordingly.
- Adjust the volume level on the back of the REDMIKE VC.

PROBLEM: No Sound From Speaker

SOLUTION: Follow these steps to produce sound from speakers.

- Turn the FP100 on. Confirm that the POWER light located on the front panel switch is on.
- Confirm signal is being received at the FP 100. The IR signal light will be red indicating a signal is being received.
- Confirm that REDMIKE VC is turned on. There will be a blue LED on the microphone to indicate it is powered on.

If you review these instructions and still have questions, write down the serial number and model number of your system and call Lightspeed Technical Services at 800.732.8999, 5 a.m. – 5 p.m., PST. *Customers outside the U.S. should contact their local reseller.*

TIPS TO OBTAIN OPTIMUM AUDIO PERFORMANCE

- Speak in a natural voice. A normal conversational speech levelwill provide an adequate signal. It is not necessary to increase the intensity of your voice—the audio system provides adequate amplification (approximately 5 – 10 dB) above ambient room noises.
- Avoid wearing jewelry that may rub or bump against the microphone.
- Turn the REDMIKE off during private conversations with a student, parent, or other classroom visitor. You can also cover the LED lens on top of the REDMIKE to block the signal.
- Recharge batteries each night. When recharged nightly, operating time (actual usage) for the transmitters will last through a typical school day.

SECTION 5:

WARRANTY, SAFETY & SPECIFICATIONS

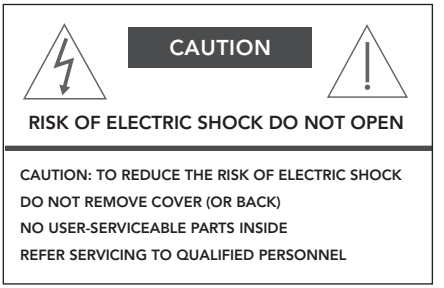
FIVE-YEAR LIMITED WARRANTY

Lightspeed Classroom Audio Systems are guaranteed against malfunction due to defects in materials and workmanship for a period of FIVE (5) YEARS, beginning at the date of the purchase invoice. If such malfunction occurs, the product will be repaired or replaced (at Lightspeed's option) without charge during the warranty period.

1. Warranty on infrared microphones is FIVE (5) YEARS.
2. Warranty on Lightspeed rechargeable batteries, all external cables and wires provided by Lightspeed is one (1) year.
3. Prepaid shipping labels are provided by Lightspeed factory or an authorized warranty service center for warranty repairs.
4. Warranty does not extend to finish, appearance items, or malfunctions due to abuse or operation other than specified conditions, nor does it extend to incidental or consequential damages. Repair by other than Lightspeed or its authorized service agencies will void this guarantee. Information on authorized service agencies is available from Lightspeed Technologies, Inc.

Our Service Department (800.732.8999, 5 a.m. – 5 p.m., PST) will handle all your repair/replacement needs. ***Customers outside the U.S. should contact their local reseller.***

SAFETY WARNINGS AND CERTIFICATIONS


CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED PERSONNEL

CE

This product conforms with the essential requirements of the following European Union Directives: 89/336/EEC, 92/31/EEC, 93/68/EED, and 2004/108/EC Electromagnetic Compatibility Directives.

Lightspeed Technologies launched a formal product recycle program in Europe that complies with the European Union Directive 2002/96/EC on Waste Electrical and Electronic Equipment ("WEEE Directive"). Please visit our website at www.Lightspeed-tek.com for more information.

ROHS

This product is manufactured using lead-free processes and is free of other materials harmful to the environment. It conforms to the most stringent new European guidelines for consumer products (RoHS).

SYSTEM SPECIFICATIONS

OVERALL SPECIFICATIONS

Carrier Frequencies (IR)	2.06/2.54; 3.2/3.7 MHz
Signal-to-Noise Ratio	> 73 dB
Dynamic Range	> 73 dB
Maximum Deviation	±50 Hz
Frequency Stability	±3%
Frequency Response	100 Hz - 10k Hz
Audio Output Level	0 - 1.0 V

RECEIVER SPECIFICATIONS

Receiver Type	Superheterodyne
Receiver Sensitivity	6 µV for 60 dB S/N
Image and Spurious Rejection	> 70 dB
Reception Selectivity	40 kHz
Squelching Mute Level	3.2 µV
Dimensions (W x D x H), Weight	5" x 5" x 1.25", 15.3 oz
Power Supply (UL Listed)	24 V/250 mA

TRANSMITTER SPECIFICATIONS

REDMIKE and REDMIKE VC	
Audio Distortion	< 1 %
Built-in Microphone	Unidirectional Electret
Battery Power (1-year warranty)	1 AA NiMH Rechargeable Sensing
Audio Input	3.5 mm
Dimensions (W x D x H), Weight	0.9" x 1.0" x 3.5", 2.1 oz.
LT71 LightMic	
Audio Distortion	< 1 %
Built-in Microphone	Unidirectional Electret
Battery Power (1-year warranty)	2 AA NiMH Rechargeable
Audio Inputs	Mic Level 3.5 mm, Line Level 3.5 mm
Dimensions (W x D x H), Weight	1.375" x .75" x 4.625", 3.7 oz.
REDMIKE Share Handheld Microphone	
Audio distortion	<1%
Built-in Microphone	Uni-directional electret
Battery Power (1-year warranty)	2 AA NiMH Rechargeable Battery Pack
Audio Input	3.5 mm
Dimensions (W x D x H), Weight	8.25" x 1.3" x 1.3"
Weight (with batteries)	7.9 oz

SR70 SENSOR SPECIFICATIONS

Operating Range	Up to 1600 square feet
Cable	50 ft., Plenum-rated Cat 5e
Mounting	Ceiling clip/Wall bracket
Dimensions	4.25" (Diam.) x 2.0" (H)
Weight	4.5 oz.

lightspeed™

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